

homogenized prior to collection. Samples were transferred to the analytical laboratory within 24-48 hours after the cessation of runoff.

2.3.3 Laboratory procedures

The Mecklenburg County Laboratory was contracted to perform all chemical analyses. As a certified laboratory, the Mecklenburg County Laboratory provided documentation of QA/QC procedures and detection limits for each of the following water quality parameter constituents that had been analyzed.

1. Total suspended solids (TSS)
2. Total dissolved solids (TDS)
3. Oil and grease (O&G)
4. Chemical oxygen demand (COD)
5. Acidity and alkalinity
6. Nitrate-N ($\text{NO}_3\text{-N}$)
7. Nitrite-N ($\text{NO}_2\text{-N}$)
8. Ammonium ($\text{NH}_3\text{-N}$)
9. Total Kjeldald nitrogen (TKN as N)
10. ortho-phosphorus (OP as P),
11. Total phosphorus (TP as P), and
12. Trace Metals including cadmium (Cd), chromium (Cr), lead (Pb), nickel (Ni) and zinc (Zn)

Samples for metal analysis were preserved with nitric acid for at least seven days prior to determination of metal concentrations in the aliquot. The measured metal concentrations may or may not be equivalent to total metal (with sample digestion). However, it represents the maximum leachable metals that would appear in receiving waters under extremely acidic conditions. Results of laboratory analyses and QA/QC procedures are provided in a computer diskette as an attachment to this report.

To assure data reproducibility, the Environmental Research laboratory at UNC-Charlotte also performed chemical analyses for TSS, COD, acidity, alkalinity, nitrate-N, nitrite-N, and orth-P. Satisfactory and consistent analytical results have been reported to NC DWQ, when comparing both laboratories' data. However, only analytical data provided by the Mecklenburg laboratory, as the data source from a certified laboratory, are presented in this report.

2.3.4 Precipitation

The depth and timing of precipitation was measured at each of the monitoring sites. Each site was equipped with a standard non-recording and a tipping bucket installed on a 2.5-meter pole. For each of the paired sites, these gauges were installed at only one of the two sites of each pair. Temporal precipitation data was logged either by an American Sigma 800 or 900 Max automatic water sampler or an American Sigma 950 water level recorder. Tipping bucket precipitation totals were corrected to standard